

Appl. No. 09/904,084
Amdt. Dated February 4, 2004
Reply to Office action of October 27, 2003

REMARKS

Applicants' counsel thanks Examiner Marcantoni for his careful and thorough examination of the present application. The undersigned also thanks the Examiner for the very helpful telephone conversation of February 2, 2004 during which the application was discussed.

The claims have been amended, and new claims 21-33 have been added, to more clearly describe the invention. No new matter has been entered. For the Examiner's convenience, basis for the following amended (and new) claims can be found, e.g., in the application as follows:

<u>Claim(s)</u>	<u>Basis in application</u>
1,8	Claim 4 as filed
4,11,21,22,23,33	Pg. 5 lines 16-23
6,13,18,25	Pg. 7, lines 18-25
24	Claim 2 as filed
26	Pg. 4 lines 10-11
27	Pg. 4 lines 10-15
28	Pg. 4 line 2 to Pg. 5 line 10
29	Pg. 4, Table
30	Pg. 8 lines 10-18
31	Pg. 7 lines 5-9 and 18-25
32	Claims 1 and 4 as filed, Pg. 5 lines 3-5 and 12-14

The claims have been rejected under 35 USC § 112, second paragraph based on an alleged "vagueness" as to which rare earth metal oxides are the

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primary stabilizer, group A dopant, and group B dopant. (See Office action, last paragraph beginning on page 2). Claims 1, 8 and 16 have been amended to recite "said group A dopant being selected from the group consisting of rare earth oxides, alkaline earth metal oxides, transition metal oxides, and combinations thereof, but excluding those species contained in said base oxide, group B dopant and primary stabilizer groups." This language clearly delineates the scope of the group A dopant group, vis-a-vis the other component groups recited in the claims. During the above-mentioned telephone conversation it was agreed that this language appeared to overcome the Section 112 rejections.

Claims 1-20 also were rejected under 35 USC § 102(b), or alternatively under 35 USC § 103(a), as being allegedly anticipated by, or obvious over, Fehrenbacher. Independent claims 1 and 8 now have been amended to recite "the ratio of the molar percentages of group A dopant to group B dopant in said composition is between about 1:8 and about 8:1." Fehrenbacher does not disclose such a limitation; i.e. where a ratio of the molar percentage of the group A dopant to that of the group B dopant (as they are defined in the pending claims) is between about 1:8 and about 8:1.

Neither does Fehrenbacher fairly suggest such a limitation. Turning substantively to the reference, Fehrenbacher teaches a

type C mixed rare earth oxide solution compris[ing] primarily oxides of dysprosium, erbium, ytterbium, and holmium, with small amounts of oxides of thulium, lutetium, and terbium.A typical solid solution used was found to have 15.2 percent Yb_2O_3 , 45.0 percent Dy_2O_3 , 28.0 percent Er_2O_3 , 9.2 percent Ho_2O_3 , 1.3 percent Tb_2O_3 , 1.0 percent Tm_2O_3 , and 0.3 percent Lu_2O_3 .

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Fehrenbacher, col. 1 lines 58-65.

None of the components listed in Fehrenbacher above falls into the "group B dopant" category as the group B dopant is described in either of independent claims 1 or 8 (where the group B dopant is selected from the group consisting of Nd_2O_3 , Sm_2O_3 , Gd_2O_3 , Eu_2O_3 and combinations thereof). Therefore, Fehrenbacher cannot anticipate, suggest or make obvious the ratio of group A to B dopants now recited in those claims.

Independent claim 16 recites a composition comprising "at least two compounds selected from the group consisting of group A dopants and group B dopants," with the group B dopant defined as in claims 1 and 8, and the group A dopant also defined as in claims 1 and 8 except the group A dopant explicitly excludes Er_2O_3 . (See claim 16: "said group A dopant being selected from the group consisting of rare earth oxides other than Er_2O_3 "). Conversely, the "type C mixed earth oxide solution" disclosed in Fehrenbacher above includes Er_2O_3 , typically 28.0 percent of it. Therefore, Fehrenbacher neither discloses nor suggests the composition recited in claim 16.

New independent claim 32 has been added, and is drawn to a novel composition where the group A and B dopants are defined respectively based on the size of their respective cationic radii relative to the cationic radius of the primary stabilizer. The ratio of the group A to B dopants in claim 32 is in the range of about 1:8 to about 8:1. The novel composition of claim 32 is heretofore unknown in the prior art, and therefore is submitted as being presently allowable.

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All remaining claims are dependent claims, and are believed to be allowable as such. In view of the foregoing, it is respectfully submitted that all claims are in condition for allowance, and a notice to that effect is respectfully requested.

Should the Examiner have any questions regarding this submission, or for any other reason which may expedite prosecution of the application, the Examiner is invited to please contact the undersigned attorney at the phone number listed below.

If there are any additional fees not mentioned above resulting from this communication, please the charge same to our Deposit Account No. 16-0820, our Order No. 33253US1.

Respectfully submitted,

PEARNE & GORDON LLP

By 
Steven J. Solomon, Reg. No. 48719

1801 East 9th Street
Suite 1200
Cleveland, Ohio 44114-3108
(216) 579-1700

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